

## **REMARKS**

In the Office Action dated November 14, 2006, the Examiner maintained the rejection of claims 1-16 under 35 U.S.C. §102(b) as being anticipated by Misic. Claim 17 was rejected under 35 U.S.C. §103(a) as unpatentable over Misic in view of Srinivasan.

The Examiner stated that Applicant's arguments filed August 28, 2006 in response to the previously-made same rejection were not persuasive because Applicant retained the word "or" between the three different descriptions of the current flow that result from the respective control states. The Examiner stated that the use of the word "or" in this context does not require that the claimed subject matter be necessarily operable to achieve all of those current flow situations, and therefore the Examiner stated the prior art applied against the claims does not need to be capable of achieving all of those current flow situations. Nevertheless, the Examiner provided an analysis of the Misic reference that, according to the Examiner, discloses all of these three current flow situations.

Applicant does not agree with this analysis of the Examiner, both with regard to the language of the claims and the teachings of the Misic reference. The only reason why the word "or" was still used in the claims was because, as argued in Applicant's previous response, it is obviously not possible for any two of those current flow situations to exist simultaneously, but it is nevertheless essential that the claimed antenna arrangement be *capable* of achieving all three current flow situations. The same must therefore be true of any prior art applied against the claims.

Nevertheless, the claims have been amended to explicitly state that the tuning elements have respective non-coinciding first, second and third control states, and the aforementioned current flow situations have been explicitly identified as occurring when those respective control states exist. This language now clearly requires that the antenna arrangement not only assume each of the three control states, but also that the respective current flow situations associated with those current flow states be produced by the antenna arrangement when those respective control states exist.

The Examiner also responded to Applicant's previous arguments that the Mistic reference does not teach three switching states or states of operation, because the PIN diode switching element used in the Mistic reference is only a binary switching element. The Examiner stated that the claims of the application do not require that each of the states be achieved by a single switch. Applicant does not understand why the Examiner believes that such a claim limitation is necessary in order to make that argument relevant. In fact, as can be seen from Figures 3 and 4 of the present application, Applicant does not make use of a single switch in order to achieve the aforementioned three control states, but instead makes use of two switches. The point of the argument, however, was that a binary switch as used in Mistic, which is capable of assuming only two switching states, is thus incapable of achieving three switching states, and therefore the Mistic system is incapable of operating as set forth in the claims. Applicant therefore again submits that this is an extremely relevant argument in support of patentability.

In addition to the aforementioned amendments, each of the independent claims has been amended to state that the auxiliary circuit section of the auxiliary circuit is at a larger distance from the section axis than the coupling section, and to

state that the tuning elements are connected between the auxiliary circuit section and the coupling section. This is clearly shown in Figures 3 and 4 of the present application, and was explicitly described in the language added to the specification in Applicant's previous response at page 5 of the specification immediately below line 19. This amendment to the disclosure was approved by the Examiner in the last Office Action.

This Amendment is also relevant to the application of the Misic reference against the claims of the present application, because the Examiner has relied on coil section 72 as, according to the Examiner, corresponding to the claimed auxiliary circuit section, and has relied on component 74 in the Misic reference as corresponding to the coupling section. As is clear from Figure 4 of the Misic reference, components 72 and 74 are disposed at the same distance from the Z axis, which the Examiner has stated corresponds to the claimed section axis. This amendment by itself should be sufficient to preclude continued reliance on the Misic reference as an allegedly anticipating reference. Moreover, since the components 72 and 74 in the Misic reference are continuous with each other, it does not seem possible, much less obvious, to modify the structure shown in Figure 4 of the Misic reference so that those components 72 and 74 would be disposed at respectively different distances from the Z axis.

Moreover, the claims now state that the tuning elements are disposed between the aforementioned coupling section and auxiliary circuit section. Therefore, the only "candidate" in the Misic reference for such a tuning element would be the PIN diodes 88, but there is no disclosure anywhere in the Misic reference that those diodes are in any manner controllable. Those diodes are simply

present to require current flow in one and only one direction. There are not even any control lines shown as proceeding to those elements, and therefore it is not seen how any of the PIN diodes 88 could do anything except become conductive or non-conductive depending on the voltage across each diode.

The Examiner referred to a discussion at column 6 in the Misic reference regarding tuning capacitors, but Applicant is unable to find any language in that passage describing that the tuning capacitors can be controlled in any manner, much less dependent on or in combination with any alleged "control" of the diodes 88.

The Examiner also referred to Figure 5 of the Misic reference and the elements 104 shown therein, and cited language in the Misic reference that the Examiner interprets as describing adjustment of the phase of the elements 104. Applicant respectfully submits the Examiner's interpretation of this language is not correct.

Two elements 104 are shown in Figure 4. The upper element 104 is connected to the birdcage structure 64, and therefore has no involvement with either the element 72 or the element 74 shown in Figure 4. As can clearly be seen from Figure 4 of the Misic reference, the birdcage structure 68 is completely separate from the birdcage structure 64, but the elements 72 and 74 are only present in the structure 68.

The lower element 104 shown in Figure 5 of Misic is, in fact, connected to the structure 68, but only serves as a simple 90° splitter that divides the input signal supplied thereto into two signals of equal amplitude that are phase-offset by 90° relative to each other. This element cannot be controlled, and simply operates passively to effect the aforementioned 90° splitting. Moreover, it is not the case that

one or the other of these phase-offset signals are supplied to the element 72, as stated by the Examiner. It is also not the case that one of these signals is supplied to each of the elements 72 and 74. Instead, both signals, as explained at column 5, lines 42-52, are supplied to the element 68. The reference to 90° mentioned in lines 57-58 at column 5 of the Misic reference does not refer to the phase, but refers to the circumferential position, as explicitly defined at column 4, lines 21-25 of the Misic reference.

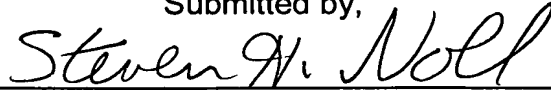
Therefore, neither element 104 in the Misic reference (nor elements 102 or 108) has any involvement whatsoever with a selective adjustment of any operational state of the Misic system, much less an adjustment of three states.

Applicant therefore submits that the Misic reference does not disclose all of the elements of any of claims 1-16 as arranged and operating in those claims, and therefore does not anticipate any of those claims.

These arguments are also relevant to the rejection of claim 17 under 35 U.S.C. §103(a) based on Misic and Srinivasan. Claim 17 embodies the subject matter of independent claim 1 therein, and therefore even if the Examiner's statements regarding the Srinivasan reference are correct, modification of the Misic reference in accordance with those teachings still would not result in a structure corresponding to the structure of claim 17.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,



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